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1. A sensing device for generating orientation data when positioned or moved relative to a surface, the orientation data being indicative of an orientation of the sensing device relative to the surface, the surface having coded data disposed upon it, the coded data being indicative, when sensed by the sensing device, of the orientation, the sensing device including:
 - 5 a housing;
 - orientation sensing means configured to generate the orientation data using at least some of the coded data; and
 - 10 communications means configured to communicate the orientation data to a computer system.
 2. A sensing device according to claim 1, wherein the orientation data is indicative of at least one of a yaw, a pitch and a roll of the housing relative to the surface.
 - 15 3. A sensing device according to claim 1, further including motion sensing means for generating movement data when the sensing device is moved relative to the surface, the communications means being configured to communicate the movement data to the
 - 20 4. A sensing device according to claim 3, further including region identity sensing means configured to sense, when the sensing device is positioned or moved relative to a region of the surface, and using at least some of the coded data, region identity data
 - 25 5. A sensing device according to claim 4, wherein the motion sensing means is

configured to generate the movement data using at least some of the coded data.

6. A sensing device according to claim 5, wherein the coded data is also indicative of a plurality of reference points of the region, the motion sensing means being
5 configured to generate the movement data on the basis of the sensing device's movement relative to at least one of the reference points.

7. A sensing device according to claim 5, wherein the coded data includes periodic elements, the motion sensing means being configured to generate the movement data on
10 the basis of the sensing device's movement relative to at least one of the periodic elements.

8. A sensing device according to claims 6 or 7, wherein the motion sensing means is configured to sample the position of the sensing device relative to the at least one
15 reference point or periodic element, thereby to generate the movement data.

9. A sensing device according to claim 8, further including a distance estimation means configured to estimate a distance of the sensing device from the at least one reference point or periodic element.
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10. A sensing device according to claim 9, wherein the communications means is configured to communicate distance data to the computer system, the distance data being indicative of the distance.

25 11. A sensing device according to claim 9, wherein the motion sensing means is configured to use the distance estimated by the distance estimation means to resolve a more accurate position of the sensing device than indicated by the at least one reference point or periodic element alone.

12. A sensing device according to claim 5, further including orientation sensing means configured to sense an orientation of the sensing device relative to at least some of the coded data.

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13. A sensing device according to claim 12, wherein the communications means is configured to communicate orientation data to the computer system, the orientation data being indicative of the orientation.

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14. A sensing device according to claim 3, wherein the movement sensing means includes at least one acceleration sensing means, the acceleration sensing means being configured to sense acceleration of the sensing device as it is moved relative to the surface region, the movement sensing means being configured to generate the movement data by periodically sampling the acceleration.

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15. A sensing device according to claim 14, wherein the acceleration sensing means is configured to sense at least two substantially orthogonal components of acceleration.

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16. A sensing device according to claim 4, further including timer means configured to generate a time reference as the sensing device is moved relative to the surface region.

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17. A sensing device according to claim 16, wherein the communications means is configured to communicate time reference data to the computer system, the time reference data being indicative of the time reference of the movement data as generated by the timer means.

18. A sensing device according to claim 1, wherein the communications means is a

wireless communications means.

19. A sensing device according to claim 1, further including a force sensing means configured to sense a force applied to the surface by the sensing device.

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20. A sensing device according to claim 19, wherein the communications means is configured to communicate force data to the computer system, the force data being indicative of the force.

10 21. A sensing device according to claim 19, further including a stroke detection means configured to detect, by way of the force, when the sensing device is applied to the surface and removed from the surface, thereby to identify the duration of a stroke.

15 22. A sensing device according to claims 4, 5 or 14, further including a marking nib for marking the surface.

23. A sensing device according to claim 22, wherein the sensing device is in the form of a stylus or pen.

20 24. A sensing device according to claims 1, wherein the coded data is substantially invisible to the unaided human eye.

25. A sensing device according to claim 24, wherein the coded data is printed using infrared ink, the sensing device being responsive in the infrared spectrum.

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26. A sensing device according to claim 6, wherein the coded data includes a plurality of tags, each of which is indicative of an identity of a region within which the tag lies, and of a reference point of the region, the region being associated with the

surface, the reference point being indicative of the position of the tag within the region.

27. A sensing device according to claim 7, wherein the coded data includes a plurality of tags, each of which is indicative of an identity of a region within which the
5 tag lies, and each of which includes at least one periodic element of the coded data.

28. A sensing device according to claim 1, wherein the orientation sensing means is configured to infer the orientation from perspective distortion of at least some of the coded data.